

Chapter 3: Proportions and Variation

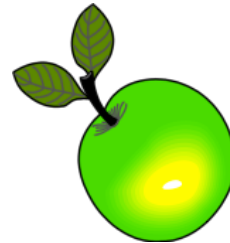
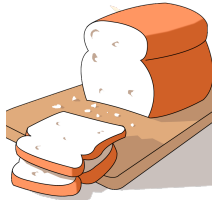
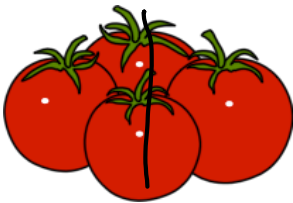
3.2 Slope

Unit Title: What is for dinner?

Unit Question: Why Should I Compare?

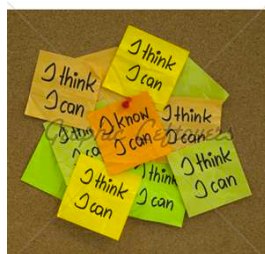
Learner Profile: Inquirer

Area of Interaction: Environments



I Can Statement:

I can compare 2 rates graphically.



With a partner:

List 2 or 3 very fast animals and 2 or 3 very slow animals.

How do you compare miles per hour to feet per second?

If an antelope can reach a speed of 61 miles per hour, what is an antelope's speed in feet per second?

$$\frac{61 \text{ miles}}{\text{hour}} \times \frac{1 \text{ hour}}{3600 \text{ seconds}} \times \frac{5280 \text{ ft}}{1 \text{ mile}}$$

How do you compare feet per second to miles per hour?

If a black mamba snake can reach a speed of 29.3 feet per second, what is the snake's in miles per hours?

$$\frac{29.3 \text{ ft}}{1 \text{ sec}} \times \frac{1 \text{ mile}}{5280 \text{ ft}} \times \frac{3600 \text{ seconds}}{1 \text{ hour}}$$

Turn to page 59 in your journal:

Work with your table to complete the chart showing maximum speeds of several animals. Choose 12 random animals to do together as a team.

- Find the missing speeds. Round your answers to the nearest tenth.
- Which animal is fastest? Which animal is slowest?
- Explain how you convert between the two units of speed.

Homework

Finish Workbook p59

Starter Reflections

If you did not score at least 17 points on p102, you need to do a reflection and p102 11-17 all.

If a Gray Fox can run at 61.6 feet per second, fill in the following table:

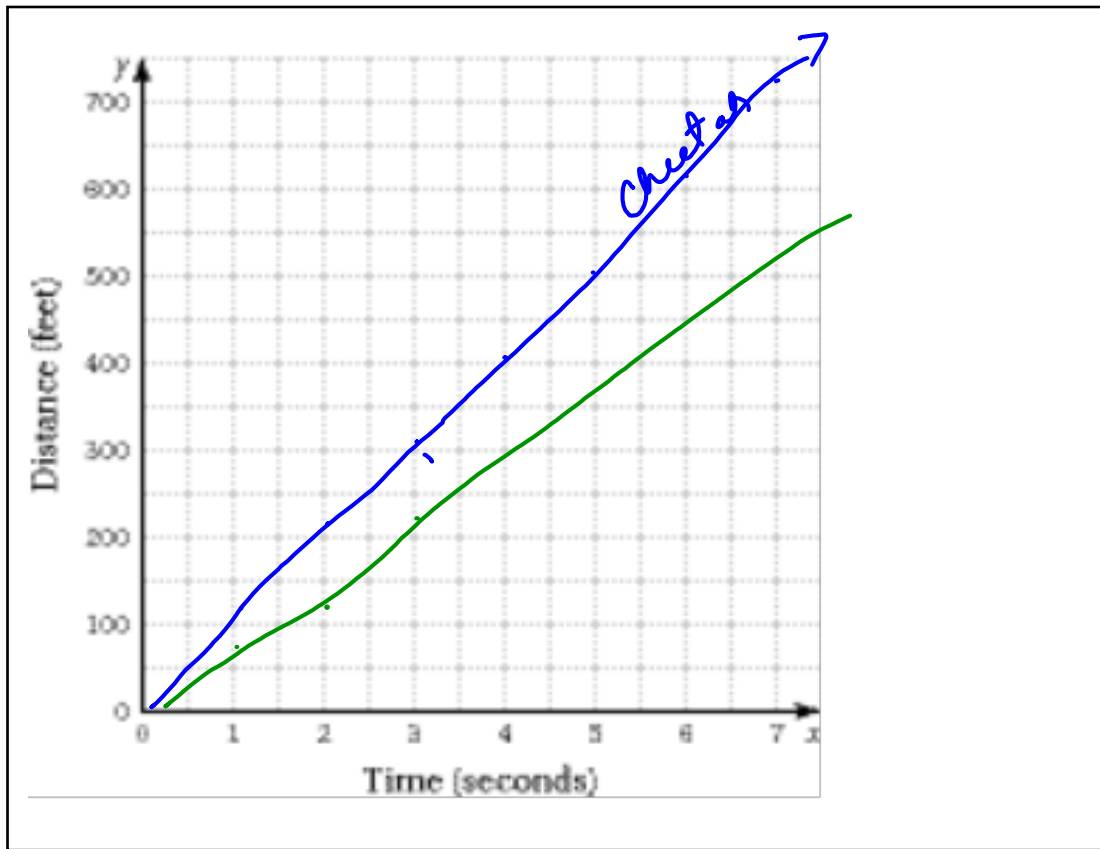
Seconds	Distance
1	61.6 feet
2	123.2
3	184.8
4	246.4
5	308
10	616 FEET

Turn to page 60 in your journal:

Work with a partner. A cheetah and a Thomson's gazelle are running at constant speeds.

- Find the missing distances.
- Use the table to complete the line graph for each animal.
- Which graph is steeper? The speed of which animal is greater?

	Cheetah	Gazelle
Time (seconds)	Distance (feet)	Distance (feet)
0	0	0
1	102.6	
2		
3		
4		
5		
6		
7		



Turn to page 61 in your journal:

What Is Your Answer?

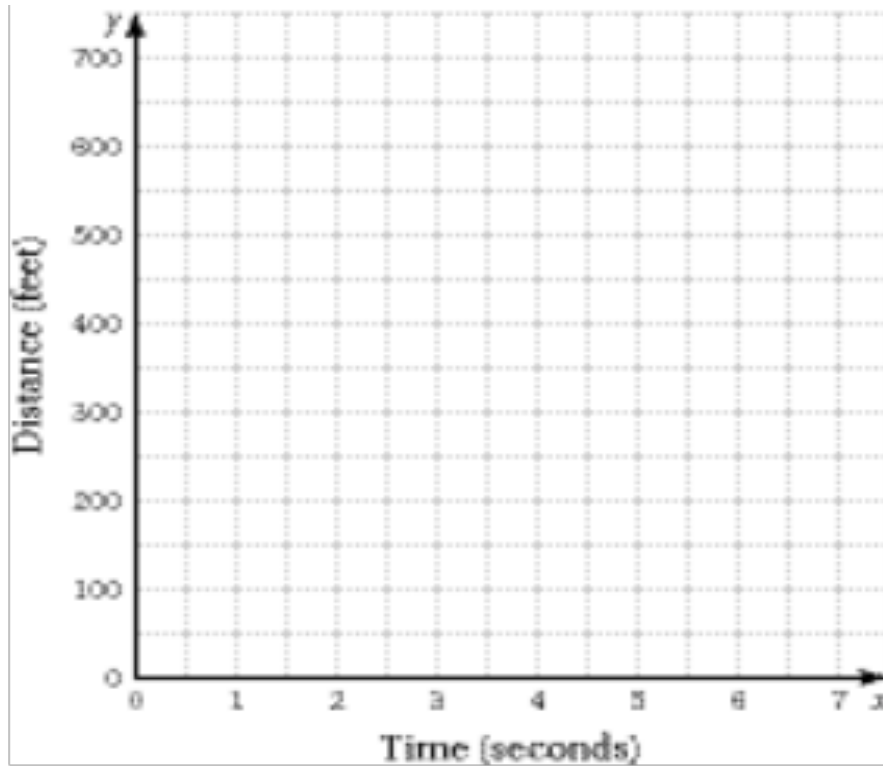
3. IN YOUR OWN WORDS How can you compare two rates graphically? Explain your reasoning. Give some examples with your answer.

4. Choose **5** animals from Activity 1.

a. Make a table for each animal similar to the table in Activity 2.

b. Sketch a graph of the distances for each animal.

c. Compare the steepness of the **5** graphs. What can you conclude?



Homework

Finish Workbook p59-61

Complete Textbook p106-107 1-4 all